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ABSTRACT

Writing and discussion are excellent ways for students to master content, develop analytical abilities, and become active and collaborative learners. The Writing Across the Curriculum movement offers a theoretical framework for the use of writing in instruction, maintaining that writing skills are primarily thinking skills, that writing is a dialectical process of developing an understanding of something, and that higher order thinking skills can only evolve through a writing process in which the writer engages in an active, on-going dialogue with him- or herself and others. Research on the use of discussion or peer review groups in instruction indicates that the interaction they provide helps students develop critical thinking and problem-solving skills and improves motivation. Many faculty, however, are either unaware of these movements or actively resist them, with some English faculty worried that non-expert teachers will be engaging in writing instruction and other teachers concerned over giving up course time to include writing assignments. Teachers do not have to be grammarians, however, to offer guidance with writing and writing exercises can be effective methods of transmitting course content. In political science courses at Southern Illinois University, several assignments have been developed incorporating writing and discussion. In introductory courses, students are asked to read pro and con arguments regarding an issue and write an argumentative essay for one side. In higher-level courses, students prepare cases analyses related to seven broad topics. Contains 38 references. (TGI)

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Writing (and Talking) To Learn: Integrating Disciplinary Content and Skills Development

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WRITING (AND TALKING) TO LEARN:

INTEGRATING DISCIPLINARY CONTENT AND SKILLS DEVELOPMENT

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Abstract

Writing and discussion are excellent ways to master content and develop analytical abilities. They also help students become active and collaborative learners. Faculty sometimes resist adopting the techniques, fearing loss of disciplinary content or of opportunities to practice formal writing. The paper describes several cases which successfully integrated coverage of disciplinary content and development of writing and analytical skills.

Introduction

Writing to learn: this concept, which may be familiar to many but seem novel to others, is well supported--by both intuition and an extensive body of literature. This literature reports theory, research, and substantial experience with what is commonly known as Writing Across the Curriculum. Both writing and learning are typically leading priorities of both institutions and individual faculty members. Despite this, many faculty seem reluctant to adopt the practice of using writing to foster learning. In some cases, they have not been introduced to the concept, or are skeptical about the idea or its proponents. In other cases, their reluctance stems from institutional barriers--the tradition of placing responsibility for writing in the English department or a reward structure which provides little incentive to spend the time required. Many times, however, they have personal apprehensions about their preparation for teaching writing, or they are reluctant to sacrifice the time otherwise used to cover what they regard as indispensable disciplinary content. The difficult process of overcoming these institutional barriers is not the focus of this paper; though I believe that it is crucial to the ultimate success of efforts to encourage writing in all disciplines. Many of the individual barriers, however, are likely to yield to better understanding of several things: what it is to write and learn, that these can and should take place within the disciplines, and that faculty members in the disciplines are eminently capable of guiding students in these processes. My own journey to these realizations has been haphazard, often informed by neither theory nor the experience of others. Moved to begin the journey by frustration with classes which didn't seem to be accomplishing my objectives (or those announced by my university), I frequently discovered relevant theory or experience only after stumbling, sometimes awkwardly, onto my own ways of doing things. The purpose of this paper is to share with colleagues, some of whom may be only beginning their own journeys, my experiences with helping students to learn by writing. I hope that those experiences will prompt others to begin what I have found to be an exciting and satisfying excursion.

Writing Across the Curriculum

The intuitive support for the idea that writing is a way of learning should be familiar. When we want to imprint something in our memory, we instinctively reach for a writing instrument. When we want to understand our ideas, see their relationships, and manipulate them, we put them into writing. It is something which simply comes naturally. These intuitions, however, do not often seem to inform our pedagogy, perhaps because they are so instinctive.

The theory supporting the proposition is well developed. It is central to what has come to be known as the Writing Across the Curriculum movement. We owe its early articulation in the United States to Janet Emig, who in 1977 advanced the idea that "writing represents a unique mode of learning--not merely valuable, not merely special, but unique" (p. 122). According to Fulwiler, Emig helped us to see that "the act of writing allows us to manipulate thought in unique ways, because writing makes our thoughts visible and concrete and allows us to interact and modify them. . . . developed thinking is not really possible, for most of us, in any other way" (Fulwiler, 1982, p. 18). Both the movement and Emig herself owe much to the work of Britton and his colleagues in their studies involving British school children. In addition to the phrase "writing across the curriculum" itself, this work contributed an important way of classifying writing--according to its function. Transactional writing is that which seeks to inform, persuade, or instruct an audience. Such writing, they found, made up the majority of work performed by British children. This is the most familiar kind of writing in academia, found in term papers,

examinations, lab reports, and so on. Poetic writing (what might be called creative writing in this country) is artistic language common to fiction, drama, and poetry. The third category, expressive writing, is that in which writers speak to themselves or others close to them. It is the writing which is closest to thinking (and hence, contributes most to learning). Significantly, it made up only about five percent of the writing which Britton and his team examined (Fulwiler, 1982, p. 20). It is by far the least common kind of writing found in American higher education. Britton also was one of the first to conceptualize writing in terms of a process rather than as a finished product. This is another centerpiece of the theory.

Out of all of this theory emerged the Writing Across the Curriculum movement in the United States. Our purpose here is to identify the development of some of the basic ideas of the movement, and not to provide a detailed history. But for those interested, Russell has provided an excellent history (1992), and Griffin has prepared an extensive annotated bibliography (1990).

This movement, which has writing to learn as its central tenet is said to represent a paradigm shift in the way in which the teaching of writing is conceptualized (Hairston, 1983). In contrast, the paradigm preceding the shift has sometimes been referred to as "learning to write." Drawing upon Hairston, Allen his colleagues effectively summarize its assumptions:

1. Students can successfully learn content whether or not they can write well.
2. Writing and thinking involve different skills. Each can, and perhaps should, be taught separately.
3. Knowing something is logically prior to writing about it.
4. Writing is a sequential, linear activity which involves the cumulative mastery of components like sentence structure or outlining.
5. Communication is the main purpose of writing. Written work is a product in which the student reports what he or she already knows.
6. The student's audience is most often assumed to be the instructor. (Allen, Bowers, & Diekelman, 1989, p. 7)

As the authors point out, it is implicit in these assumptions that writing is best taught by experts, most likely from the department of English, and that writers then transfer these skills to content areas.

The new paradigm, on the other hand, focuses upon writing to learn:

1. Writing is a process through which content is learned or understood (as opposed to memorized or reported).
2. Writing skills are primarily thinking skills (competence in one is inseparable from competence in the other).
3. Writing is a process of developing an understanding or coming to know something.
4. Writing is a dialectical, recursive process rather than linear or sequential.
5. Higher order conceptual skills can only evolve through a writing process in which the writer engages in an active, on-going dialogue with him or herself and others. Learning and discovering are purposes as important for writing as communication.
6. Different disciplines utilize different conceptual processes and thus have different standards for writing. Students can best learn writing within their own discipline while writing for real, concrete audiences. (Allen, Bowers, & Diekelmann, 1989, p. 7)

Thus reconceptualized, thinking does not, as in the previous paradigm, precede writing, with writing simply reporting the results of thinking. The two are mutually dependent. While writing skills are enhanced by clear thinking, writing itself helps to clarify thinking. Furthermore, these interactive processes ultimately help students develop into universal (or critical) thinkers--those who can understand perspectives other than their own (Allen, Bowers, & Diekelman, 1989, p. 7).

A common feature of this approach is to treat writing as a process, involving repeated drafts, in each one of which the student moves closer and closer to an understanding of the subject and a clearer statement of that understanding.

The process begins with planning and shaping the writing, typically accomplished through the use of tentative jottings, scribbled notes to ourselves--writing which has been labeled expressive. As the writer moves to drafting, writing becomes more and more formal. Invention and discovery continue, however, through the repeated revisions which are central to this process. In the final editing stages attention shifts to writing in its transactional sense. It should also be noted that the writer's audience changes as well: expressive writing is for oneself; transactional writing is for an external, and sometimes judgmental, audience.

Drawing upon this theoretical grounding, the movement has spread widely in the United States and has generated numerous reports of the experience of those in the movement. A recent survey revealed that 38 percent of the higher education institutions responding had Writing Across the Curriculum programs, and an additional seven percent reported that they hoped to establish programs soon (McLeod, 1989, p. 338). Of the institutions which had programs, over half were well established, that is, had been in existence for more than three years. A collection edited by two of the leaders of the movement contains reports on a number of "programs which work" (Fulwiler & Young, 1990). A recent search of my university library's ERIC electronic data-base using the phrase "writing across the curriculum" generated well over 800 individual items. All of this suggests a movement which has met with considerable acceptance.

The research supporting this enterprise and evaluating its results is somewhat less extensive than that urging its spread or reporting experiences with it. For example, one of the leaders, Elaine Maimon, has conceded that there is no major study which proves that writing improves the learning of subject matter, among other things because it is difficult to have a control group which does not write (Watkins, 1990, A13). Schumacher and Nash report that the research which has been done has resulted in somewhat confusing findings: writing has had a positive impact on some kinds of measures of learning but not on others. They suggest a possible explanation: different kinds of writing result in different kinds of learning. Thus, in calling for additional research, the authors urge the use of measures, not of the students' ability to recall or recognize information, but of understanding or conceptualization. After all, it is the latter and not the former kind of learning which writing theoretically should enhance (1991, p. 67). Despite the scarcity of empirical support, faculty continue to believe in the approach. Said one: "Students' writing would be worse if I didn't do it" (Watkins, 1990, A16).

In recent years, the phrase "writing to learn" has been used by some to identify the movement (Denner, 1993). Despite the fact that the term itself has been used for some years, this shift seems intended to focus attention on the underlying principle of the movement, not well captured by the phrase "writing across the curriculum."

Talking to Learn

Discussion groups have been used in higher education for many years, often as a supplement to lecture sections for large courses. Peer review groups have also been a customary technique for members of the writing across the curriculum movement. The value of peer groups is that they can provide the kind of immediate feedback and individual attention which is said to be crucial for students learning new skills and which, in large classes, is impossible for the teacher to provide. In addition, such student groups turn the isolation of most writing into a more productive social process (Huff & Kline, 1987, p.133).

Despite this theory, there is surprisingly little in the literature on the use of discussion groups as part of the learning process theory. The available literature, however, strongly suggests the strengths of groups in the learning process, particularly in developing critical thinking skills (Dixson, 1991, p. 11). The interaction which takes place among members of the group helps students to adopt different perspectives and roles--a key to developing critical thinking (Huff & Kline, 1987, p. 136). It is also argued that it is important for students not only to learn critical thinking skills but also how to use them in the kind of group settings which are typical of adulthood. Other benefits of group discussions include developing problem solving skills, helping students refine and test their ideas, and improving student motivation by increasing their investment in their learning (Huff & Kline, 1987, p. 136; Dixson, 1991, p. 12). A decisive argument has it that controversy is inevitable as different points of view arise among group members, and the resulting controversy leads to learning (Huff & Kline, 1987, pp. 136-7). It is not surprising that such cooperative learning processes are seen to produce more learning than individualistic processes (Huff & Kline, 1987, p. 138). In spite of the power of such collaborative learning groups, students working in peer groups are said to be the "single most under-used resources in most classrooms" (Huff & Kline, 1987, p. 133).

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Resistance to Writing across the Curriculum

Despite its theoretical support and the extent of its practice, my own experience is that most of my colleagues are unaware of the movement. Those who are aware of it are often suspicious of its central tenet. Even those who agree that there may be some merit in the idea are, for a variety of reasons, reluctant to try it out. And among those who say they use writing in their classes, it most frequently consists of writing simply added on to the class--typically an end-of-term paper. These barriers to using writing to learn are not peculiar to my own institution. Young and Fulwiler (1990) have given us a catalog of them, and others have provided confirming evidence (Boice, 1990; Weinberg, 1993). Boice, for example, described the attitude among psychologists toward writing across the curriculum as "ready assent and rare application" (1990, p. 14). The sources of this reluctance are both institutional and individual. The institutional barriers are numerous and often difficult and will yield only to the concerted actions of individuals. Institutional reward structures in many institutions put a premium on research for publication and as a result mean that the time spent teaching and advising students is not well compensated. "Writing across the curriculum is founded on the premise that integrative writing tasks will improve undergraduate learning and communication abilities, and the faculty reward system explicitly devalues faculty efforts to realize that premise" (Young & Fulwiler, 1990, p. 291). And there should be no mistake: the strategies which I describe take a great deal of time and effort. Nonetheless, the skills developed by writing--the ability to think critically and analytically, the mastery of some body of information, the ability to synthesize and integrate that body of knowledge--all of these are typically at the top of any institutional list of objectives. Institutions which genuinely value these objectives can, one hopes, ultimately be persuaded to reward--with salary increases, and even with tenure and promotion--those who do the most to help students achieve them.

Institutional barriers may also include orthodox views among members of the department of English who may not be willing to see resources diverted from literary activities to support a campus-wide mission or who are satisfied that graduate assistants or part-time instructors can do an adequate job of teaching (Young & Fulwiler, 1990, p. 288). If the idea of writing across the curriculum is going to be adopted by more than those few isolated individuals who happen upon it in one way or the other, some sort institutional mechanism for propagating and supporting the idea will be needed. But such mechanisms do not fit comfortably in the compartmentalized administrative structure characteristic of most universities (Young & Fulwiler, 1990, p. 289). At a minimum, adoption of writing across the curriculum seems to require training faculty to approach the classroom in ways of which they are perfectly capable, but which may seem new and intimidating.

Overcoming Faculty Resistance

But many of the apprehensions which seem to prevent more faculty from adopting writing to learn techniques are individual rather than institutional, and can thus yield to individual action. Faculty members express concern that they are not expert enough to teach writing, that reading and grading the writing assignments will add extra work load, that students will dislike the extra work (particularly since it is writing), and that class time is already fully committed: writing assignments will take time away from disciplinary content which it is important to cover (Boice, 1990, p. 14).

One of the most common of these individual concerns is that those outside the English department are not trained to teach writing. In part this reflects a misunderstanding of what writing across the curriculum is all about. Knoblauch and Brannon concluded that most cross-disciplinary writing programs were little more than "grammar across the curriculum" (1983, p. 465). Thus, when faculty say that they aren't trained to teach or respond to writing, what they may mean is that they've forgotten precisely what a dangling participle is, or, what to do about one even if they recognize it. There is no doubt that mechanics are important and students often need help with them. They either have not been taught the mechanics, or they have been led to believe that they are not important, or they simply can't remember or don't care. For the most part, however, these problems are relatively easy for me as a teacher of political science to deal with. Sometimes it's only a matter of convincing students that mechanical faults are problems precisely because they obscure their meaning.

If the student's difficulties lie deeper than simple carelessness, providing an appropriate response still does not obligate me to become a grammar expert. In fact, most writing experts urge that our feedback on papers not concentrate on mechanical and grammatical corrections (MacAllister, 1982; Walvoord, 1986, ch. 6; Willingham, 1990). All of us can recognize--even if we can't name--the kinds of mechanical problems which are serious flaws

in a student's writing. It is usually enough to alert students to their problems and direct them to the campus writing center for help. Feedback on papers can then focus on organization, content, coherence, and clarity of ideas. Not only do such comments contribute more to student learning, they may take less time than the detailed editing which faculty believe is expected of them. Thus, the demands of "grammar across the curriculum" are relatively easy for non-grammarians to cope with.

But there is a more fundamental reason why disciplinary specialists ought not to fear the movement. If writing is conceived as a process of learning, this focus places it squarely within the purview of those of us who are teachers and scholars. In fact, since teaching and scholarship are all about learning, we should be particularly capable of guiding students through the process; that is presumably what we do.

Faculty also complain that they are already hard pressed to include all of the content which they feel obligated to cover in the course and thus are reluctant to give up any of the course time to anything other than that most efficient method for transmitting content--the lecture. This is particularly a problem since a number of writing to learn activities require class time. This use of time is appropriate, of course, if writing and learning are going to be integrated into the course and not just tacked onto the end. Let us return to the classification of writing as either transactional, poetic, or expressive. Most teachers are likely to understand and assign transactional writing to their students. In this case, writing is used to convey back to the teacher information which students are expected to have acquired and, thus, be used to evaluate their performance. Remember, however, that Britton and his followers argue that it is in expressive writing that students are most likely to learn, and they call for "more situations in which writing serves as a tool for learning, rather than as a means to display acquired knowledge" (Fulwiler, 1982b, p. 22). Thus, advocates of writing to learn suggest the use of relatively brief periods of writing in class--either so-called freewriting or focused writing--in which students write to discover ideas and explore their interrelationships. Another favored device is the journal (sometimes called a learning log), which "records the student's individual travel through the academic world" (Fulwiler, 1982, p. 18). These contain a wide variety of writing--notes from reading, personal reflections, field notes, free or focused writing during class, and so on.

While my own experience is that such writing activities can be very productive--for generating new ideas, for helping students see implications of those ideas or the interrelationships among them--the emphasis in this private writing is upon the ideas and not upon the form or mechanics. Herein lies real tension for many faculty members who are quite rightly concerned that students also pay attention to the mechanical conventions which insure that a potential reader will clearly understand the ideas. I believe that a way out of this dilemma is to recognize the argument that expressive writing leads to better transactional writing (Fulwiler, 1982, p. 22), and devise assignments that incorporate both in an appropriate sequence.

Adding to faculty concerns is a possible mismatch between what might be called generic writing skills and the specialized conventions associated with writing in particular disciplines. Are students emerging from composition courses able successfully to negotiate the demands of writing in a specialized discipline--and perhaps in several? This question identifies clearly one of the dimensions of writing across the curriculum which requires additional exploration. But I believe that in this also lie some ways to reassure those faculty members concerned about sacrificing content to the demands of writing. In the first place, it is quite possible to agree upon certain fundamental writing characteristics which are appropriate to any discipline, despite the fact that there may be others which differ from one discipline to another. For example, while many teachers of composition as well as instructors in the humanities and social sciences might prefer active verbs, many of our colleagues in the natural sciences (and perhaps even some in the social sciences) insist on the value-free neutrality of the passive voice. Nonetheless, all would agree that the verb--whether active or passive--should agree with its subject. If students at least know the difference between active and passive voice, it will be much easier for them to negotiate any such differences among the disciplines. There is evidence, in fact, that writing among experts in the various disciplines varies less than is sometimes thought. Though there are some differences--paragraph length and development, for example--between disciplines, in many respects the idiosyncracies are greatest within disciplines (Broadhead, Berlin & Broadhead, 1982). It is thus possible to contemplate a "common vocabulary and a common approach to instruction in syntax and style" over the entire range of college writing (p. 238), providing students with basic tools to navigate through the disciplines.

Writing in All the Disciplines

There are, however, differences in writing. The student often feels like a "stranger in a strange land" (McCarthy, 1987). In fact, it might be possible to capitalize upon these differences in the "discourse of communities" to help students appreciate the variations among disciplines in their ways of knowing. On occasion I have team taught courses with colleagues from other disciplines. When a historian and I discuss the same historic event, but from the differing perspectives of our disciplines, I am struck by the dramatically different ways in which we understand and interpret that same event, ways which appear to stem from our disciplinary backgrounds. Many of us believe one of the desirable products of a general education is an appreciation of these differences. If writing is learning, then it seems to me that a focus on writing in the disciplines might be an ideal vehicle for students to acquire an understanding of these differences.

Thus, a move back toward an emphasis on teaching writing in the disciplines seems quite appropriate. While Writing Across the Curriculum is now the most common terminology, some of the early language spoke about "teaching writing in all disciplines" (Griffin, 1982). Writing Across the Curriculum is doubtless snappier nomenclature; "teaching writing in all the disciplines" has the advantage of re-emphasizing the crucial importance of the disciplines.

In fact, a call has recently been made for just such renewed attention to the disciplines themselves: "To survive and prosper, WAC [Writing Across the Curriculum] must offer more than the conversion of every class into a writing laboratory; it must attach itself to the lifeblood of communication by means of which disciplines and professions organize themselves" (Bazerman, 1991, p. 210).

The point of this discussion, however, has been to demonstrate that there is a far closer connection between writing and the disciplines, their approaches, their distinctive ways of knowing--in other words, their content--than many faculty members seem to appreciate. This concept is yet another reason why faculty members, rooted as inevitably as we all are in our disciplines, ought not to feel threatened by a movement which stresses writing in all disciplines. Thus, I believe that it would be useful to adopt the more descriptive language: Writing to Learn in All Disciplines.

The Assignments

These assignments developed out of a growing sense of dissatisfaction with the way several of my courses in political science seemed to be going. Although I had always regarded writing as an important component of my courses, I had also tended to use it in the transactional sense described above (though I had no idea at the time of that terminology): in essay exams or in a term paper tacked on at the end of the course. In the case of the essay exams, their evaluation was almost entirely based upon content--sometimes, I admit somewhat ruefully, the presence of key words or phrases. In fact, it was probably unreasonable to do much more, since students had relatively little opportunity to organize their essays and certainly none to do much rewriting. In the case of the term papers, though the topic had to have something to do with the course, the connection often turned out to be pretty tenuous. And though I typically emphasized the importance of writing the papers carefully, the assignments did not incorporate the elements crucial to helping students develop writing skills: rewriting and revising multiple drafts with constructive feedback on those drafts. But this situation led to a growing sense of guilt and unease, as I realized that despite what were very good intentions, I wasn't having much impact on my students' writing abilities. And thus began my uncertain and tentative journey toward writing to learn.

My objectives for these assignments have grown clearer over the years, but they have always been--at least unconsciously--influenced by the discourse community in which I operate: the discipline of political science. Political science includes a variety of sub-fields which may have specialized conventions for their discourse; political philosophers talk a somewhat different language from those who use quantitative techniques to study voting behavior. But there are no doubt some commonalities, which my objectives reflect. Political science is, for example, much concerned with conceptualization and generalization and is engaged in a continual search for explanation and interpretation. Much writing (need I say "and thinking") is analytical, in the classic sense of dividing a phenomenon into parts in order to understand the whole. Political scientists are frequently confronted with ambiguous and controversial issues, for which they are sometimes asked to propose solutions. In all of this, their obligation is to gather evidence for use in these analyses, explanations, and interpretations, and to support the

solutions to problems which they may be called upon to offer. To some degree, then, these assignments reflect these disciplinary ways of knowing.

Assignments in Introductory Courses

The first classes I experimented with were introductory classes of about 60 students. My first decision was to abandon essay exams, and to shift all of the writing to assignments in which students would have the opportunity to concentrate on the quality of their writing, and perhaps (I hoped) prepare more than the one final draft. So as not to give up the content connection of the essay exams, I also sought to integrate the writing assignments specifically into the content of the course. I decided to assign students a choice of topics in which they would be asked to read both pro and con statements and then argue one side or the other. There are a number of supplementary books on the market which provide such statements on controversial topics. Though I cannot say that these first assignments were a stunning success, I was satisfied that students gave more thought to some of the difficult issues of the course than they might have otherwise, and that they paid more attention to their writing than they would have in an essay exam. Reading these papers was more work than reading the same number of exams, but it seemed a worthwhile tradeoff.

Shortly thereafter, by fortuitous coincidence, I had the chance to attend two different workshops, which resulted in a transformation of these early, primitive assignments. One was a workshop which introduced me to the advantages of active, experiential learning. The second was a workshop on Writing Across the Curriculum. Here I was first introduced to Janet Emig's argument about writing to learn, to the importance of conceiving of writing as a process and not simply as a finished product, and to the importance of structuring assignments to produce the desired writing outcomes.

Out of all of this emerged my first Writing to Learn assignments. I retained the pro and con organization, but adopted a more explicitly argumentative format, and provided students with more guidance in writing argumentative papers. These assignments were accompanied by about a dozen pages of general suggestions about writing in which I attempted to reinforce the suggestions about writing as process, which I knew students had received in their freshman composition courses. I structured the assignments so as to produce more than that one final draft by including in-class peer review of a preliminary draft; I hoped that this peer review might include discussions of the substance of the issues as well as a critique of grammar and mechanics. To guide these peer panel reviews, students were provided a checklist, directing their attention to such matters as clarity of the arguments, adequacy of support, organization, and the mechanics of the writing. Three such assignments were scheduled during the quarter, and though this meant giving up three of the forty class periods during the quarter to these peer panels, I concluded that the trade-off was worthwhile.

Assignments in Upper-Level Courses

The next step was to incorporate this approach in upper level courses and to integrate the assignments even more completely into the content of the course. The first of these courses was an introduction to public administration. The pedagogy of public administration has long included the use of cases, in which students are given an opportunity vicariously to wrestle with some of the problems which they might face as public managers. This seemed an ideal vehicle, and so I built Writing to Learn assignments around a series of these cases. The course was organized around seven broad topics, and, for each of these, students were asked to prepare a three or four page case analysis. Students were provided detailed suggestions for writing these analyses, including instructions not merely to describe the cases but to emphasize the explanation and interpretation of the cases. I also suggested that they should attempt to use the details of the case to produce generalizations, or to use generalizations from other course materials to help explain the cases. The student groups were retained, but I converted them from a review and critique of preliminary drafts to a discussion of the ideas and issues contained in those drafts. Students were then required to turn in, two weeks after the case analyses were discussed in class, final drafts of five of the seven. I critiqued these final drafts and returned them with my comments as quickly as I could.

Despite the fact that the case book I used for the course was the leader in the field, neither the students nor I were satisfied with the quality of the cases. The object was to provide active, experiential learning, but the students found the cases remote and abstract, and difficult to relate to. I thus began casting about for an alternative set of assignments. The term administrative state is often used to describe a government in which most of the governing

activity is provided by large, bureaucratic organizations--the kind of government found in most western, industrial democracies, including the United States, and obviously the subject of a public administration course. Critics of this form of government abound. Ronald Reagan, for example, was fond of saying that government was not the solution, it was the problem. I decided to adopt this criticism as the theme for the course and build a series of assignments around it.

The first section of the course, for example, is concerned with the size and scope of this administrative state, as well as the history of its growth. Thus, for this section, students were provided with readings on this growth, in the text, in lectures, and in supplementary materials. Careful examination of this growth shows that it has tended to occur in response to crises such as war or depression, or to demands expressed through democratic processes that government step in to solve a problem (often one created when the market system has not performed in ways acceptable to some segment of the public). It seemed natural to ask students to take a position on the proposition "The administrative state is the enemy of the people" and to prepare an argumentative paper defending that position. As in earlier courses, I provided students with detailed suggestions about writing argumentative papers and about the importance of providing evidence and support for their positions. I also gave them general suggestions about writing, particularly about writing as process and the importance of revision and rewriting. The discussion groups were retained as an integral part of the process, but the focus of these discussion was again more on substance than upon the format of the papers. The same theme was used for all of the later assignments, concerning, for example, the role of individuals in large bureaucratic organizations, or the fact that such a government seems unable to control its spending.

I attempted to structure the assignments in such a way as to include expressive as well as transactional writing--and to capitalize on their advantages. Students were asked to bring a preliminary draft for these group discussions, but I emphasized that this shouldn't be their first draft. That first draft should have been a tentative, quite informal one, whose audience was themselves. The objective of this draft was that of all expressive writing (though I didn't use the term)--to surface ideas, clarify them, identify relationships among them, and begin to discover explanations and interpretations. Students were then asked to think of their next draft as addressed to the students in their discussion groups. Addressed to an external audience, these drafts then were to be somewhat more formal, more concerned with organization, form, etc. The final drafts, I suggested, were to be addressed to me--an external and evaluative audience, and were thus to be more formal--transactional writing (though again, I did not use this somewhat intimidating term). Students were asked to provide final drafts for five of the seven assignments.

The last assignments I will discuss were used in another upper-division course, one on politics in the American states. As with the other assignments I have described, these were also the product of a somewhat haphazard and intuitive evolution, only in their final embodiment explicitly incorporating the theories and techniques of Writing Across the Curriculum. The course uses one of the central techniques of political science--the comparative approach--in which comparisons are made among components (here, the American states). These comparisons are made in search of generalizations or in an effort to apply them. This course also lends itself to the use of quantitative evidence, another important methodology in political science. I had for many years asked students to choose a state upon which they wished to become the class expert, and as we moved through various topics to collect data about their state and write commentaries about their state and that particular topic.

It was easy to convert these assignments into a format incorporating writing to learn. The individual topics of the course were grouped together into a series of modules. For each of these units, students were asked to gather data, analyze it, and to prepare a draft commentary to be used as the basis for group discussions in class. One of these modules, for example, focused upon such topics as voting participation, election results, and interest groups in the states. Students were asked to collect data on voting turnout, election results, and information about interest groups in their state. In their commentaries they were asked to provide some possible interpretations or explanations for their findings, drawn from generalizations which had been discussed in class or in their readings. For example, voting participation has seemed sensitive to such factors as the ease with which voters can register and vote or to7 such socio-economic characteristics as average educational level. Did their state behave in the way these generalizations would have led them to expect? Following the group discussions, students were asked to make whatever changes they wished in their drafts, and then to give me what was still a preliminary draft. These were returned with comments for further changes--mostly with respect to content. All of these module drafts were then

combined, together with an introduction and a conclusion, into a final integrated report on their state, submitted at the end of the term.

Evaluation of the Assignments

Though none of these assignments has been subjected to systematic evaluation, I can report a number of impressions--drawn from informal student reactions and comments as well as from formal course evaluations. In almost every case, the initial student reaction was one of unhappiness--sometimes downright hostility--at what they perceived to be additional requirements, and requirements that they argued had little to do with political science. Since the final drafts of these assignments were to be carefully written--so as to communicate effectively with the reader--there were the typical objections: "But this is not an English course." The quality of peer reviews and of class discussions (all of which I carefully monitored) was mixed. Though some discussions were a bit aimless, in a number of cases, it was clear that there was constructive exchange of suggestions about papers. And in a large number of cases there was genuinely spirited discussion of the issues. More than once, students mentioned that they had come to the discussion with one position, but had left with another. Some students told me that they had genuinely benefitted from the insights of other members of the group, that they had come to value them as colleagues, and looked forward to the class discussions. In the assignments which asked students to take positions on authentically perplexing questions, there was frustration: one student asked me, with some pique in her voice, "Why don't you ever give us a question to which there is an answer?" But their comments and their papers also suggested a growing realization that there are often two sides to questions and that convincing others of your position depends upon the coherency and cogency of your arguments and the evidence which you provide to support them. I have also become increasingly concerned to take students through courses in such a way that they emerge with the sense that the course is a coherent whole and not simply a succession of chapters and exams. The assignments in the state politics course and those organized around the theme "The administrative state is the enemy of the people" made it easy to emphasize the connections. And it became increasingly clear as the term progressed that students saw these connections. I was heartened one day to have a student ask: "I assume that it is all right if we go back and use some arguments and materials from the assignment before last?" I'm not given to hugging in class--but I was tempted.

Let me sum up, then, the general advantages of these assignments. First, I believe that the structure of these assignments has helped students see that writing is a process, involving a number of stages, which include patient and repeated revision. In those courses where the peer review was focused on exchanged papers, the tendency of students was to see this revision simply as editing for grammatical and mechanical problems, despite my pleas that it should really focus on rethinking what they had prepared. The assignments in which the groups were focused more on content were clearly more successful in this rethinking process. Unfortunately some of the students, as they often do, heard only part of the message, and neglected the editing of their final drafts. The fact that these papers were an integral part of the development of course subject matter, I believe, helped students to see the power of writing as a learning tool and also helped them to see the connections and linkages among these individual topics.

The literature makes clear that the nature and design of writing assignments is crucial to the kind of thinking and learning which they generate. And I believe that these assignments were successful in stimulating some of the higher order, analytical thinking which I hoped to encourage. To this end, students were asked either to make sense out of a body of data or were confronted with deliberately messy, ambiguous problematic situations with which I hoped they would wrestle. Most composition theorists, however, emphasize the importance of clarity and specificity in the assignments. I tried to make the assignments themselves clear--especially in that I expected students to do more than simply describe the problems and that I expected them to use both evidence and argument to come to some conclusion. But I also tried to leave enough uncertainty in the assignments to encourage some creative thinking. There is, however, some fundamental tension between my objectives, which include both writing to learn and learning to write. I want students to grapple with difficult questions, but I also want smooth, graceful writing. But grappling with problems may not enhance the quality of prose. I suspect that we have all noticed how rapidly our writing deteriorates when we encounter new or difficult subjects. Thus when I asked students to confront some of these challenging issues, I may have put them in a position where their writing might show the signs of their intellectual stress. It may be necessary in the evaluation of these final products to recognize the tension between these objectives. Better, perhaps, in another iteration of these assignments to build in more opportunities for

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expressive writing in which students can work through this intellectual stress before embarking on transactional writing.

Conclusions

I must confess that I haven't yet sorted out all of this information and experience. I do believe that these assignments, because of both the writing and talking to learn dimensions, engaged the students in something of an intellectual discourse as the course developed. During one discussion of an unrelated curricular matter, one student said something like this: "This is the first class I've had in this university where there seemed to be concern for what I was learning." I believe that organizing these assignments around a coherent theme or process helped to identify the class as an integrated whole. Incidentally, it seems to me that this sort of writing, perhaps in learning communities, offers a vehicle for integrating university curricula, which are likewise typically viewed by students as simply a series of courses, having little to do with each other.

There are, however, some warnings to which anyone interested in pursuing these directions ought to be alert. First, prepare to spend a great deal of time thinking about the course and your objectives for it, devising the assignments, handling what is typically a more complex task in course management, and, of course, responding to the students' work. I believe that it is probably also necessary to prepare to sacrifice some of the course content. While writing is a powerful tool for learning, it does not seem best adapted to learning facts and information, and it is undeniably less efficient for transmitting information than the lecture. Be prepared for students--most of them at the beginning, and some of them throughout the term--to resist your techniques or to refuse to take them seriously. For writing across the curriculum to be really effective it must be genuinely across the curriculum. So long as there are other courses where students don't meet such challenges, some of them are likely to make unfavorable comparisons. Be prepared for discussion groups which don't always stay on track and be prepared for expectant looks when you approach some groups, as students wait for you to tell them something (which they continue to see as your job). And unless you're prepared for a good deal of frustration, don't try this unless your institution is genuinely committed to excellence in education and is willing to reward what is likely to be very considerable effort. And unless, of course, you are one of those individuals who gets satisfaction out of knowing that you have taken some very important steps to help students become the kind of active, engaged, discerning learners which they need to be.

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